

Applicant: Yao Wang, *et al.*
U.S.S.N.: 10/608,757
Filing Date: June 27, 2003
EMC Docket No.: EMC-01-141CIP2

REMARKS

The Office Action mailed January 24, 2006 has been carefully considered.

Claims 1-17 are pending and stand rejected.

Claims 1 and 3-17 have been amended.

Objection to the Specification

The specification is objected to as the Abstract does not include proper language and format.

Applicant respectfully disagrees with the objection. However, in the interest of advancing this matter, the Abstract has been amended to provide a clearer summary of the invention claimed.

Having amended the Abstract, applicant submits that the objection can no longer be sustained and respectfully requests that the objection be withdrawn.

Rejection under 35 USC 112, second paragraph

Claims 5, 9, 13 and 17 stand rejected under 35 USC 112, second paragraph as being indefinite. More specifically, the claims recite the elements “each failover server” and “the primary server” and there is insufficient antecedent basis for such elements.

Applicant thanks the examiner for his observation and has amended the claims in view of the subject matter recited in the respective independent claims to provide proper antecedent basis for the subject matter claimed.

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Having amended the claims to provide proper antecedent basis for the objected-to claim language, applicant submits that the rejection can no longer be sustained and respectfully requests that the rejection be withdrawn.

Rejection under 35 USC 102

Claims 1-4, 6-8, 10-12 and 14-16 stand rejected under 35 USC 102(e) as being anticipated by Sicola (USPPA 2004/0064639). The instant Office Action states that with regard to claim 1, Sicola teaches a data transfer server, a primary software agent, one or more software agents and that the remainder of the claim is optionally recited and thus bears no patentable weight. (see instant OA, page 3, section 5).

Applicant respectfully disagrees with the reason for rejecting the claims. However, in the interest of advancing the prosecution of this matter, the claims have been amended to more clearly state the invention. More specifically, the claims have been amended to more clearly state in a positive manner the claim element regarding the failover protocol as “a failover protocol for determining an order in which said software agents are designated to take over the data transfer operation in response to one or more data transfer commands when a failure of one or more of said software agents is determined.” No new matter has been added. Support for the amendment may be found at least on page 68, lines 15 to page 17, line 8 of the instant patent application.

Sicola teaches a data replication system having a redundant configuration including dual Fibre Channel fabric links interconnecting each of the components of two data storage sites, wherein each site comprises a host computer and associated data storage array, with redundant array controllers and adapters. (see Abstract). Sicola further teaches, in Fig. 6B and paragraph

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[0069] -[0070] the manner in which selection of a failover server is chosen. More specifically, Sicola teaches that a heartbeat pinging system is applied between the servers to determine which of the servers is active (see box 640, 643 and 645). And further teaches that when both servers are not determined to be active, the backup server performs the controller failover operation (see box 647, 650, and 655).

However, Sicola fails to teach using a failure protocol for determining an order in which said software agents are designated to take over the data transfer operation in response to one or more data transfer commands when a failure of one or more of said software agents is determined, as is recited in the claims.

Although it may be argued that Sicola teaches the use of multiple servers but only illustrates the failover operation of two servers, applicant would submit that Sicola fails to provide any suggestion of a protocol as recited in the claims. For example, if the teachings of Sicola were expanded to include multiple servers, the expanded device would either provide pinging between respective pairs of servers (i.e., Fig 6B) or pinging among a plurality of servers to determine when a server has failed. In either case, no order is established to determine which server is required to take over the operation. Rather, the selected server is that one which is not determined to have failed.

A claim is anticipated only if each and every element recited therein is expressly or inherently described in a single prior art reference. Sicola cannot be said to anticipate the present invention, because Sicola fails to disclose each and every element recited in the claims.

For at least this reason, applicant submits that the rejection has been overcome and requests the rejection be withdrawn.

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With regard to the remaining independent claims, these claims recite subject matter similar to that recited in claim 1 and were rejected citing the same reference used in rejecting claim 1. Thus, the remarks made in response to the rejection of claim 1 are applicable in response to the rejection of the remaining independent claim.

For the amendments made to the claims and for the remarks made in response to the rejection of claim 1, which are reasserted, as if in full, in response to the rejection of the remaining independent claims, it is submitted that the rejection of these claims has been overcome and the rejection can no longer be sustained. It is respectfully requested that the rejection be withdrawn and the claim allowed.

With regard to the remaining dependent claims, these claims ultimately depend from the independent claims, which have been shown to be allowable over the cited references. Accordingly, the remaining claims are also allowable by virtue of their dependence from an allowable base claim.

Rejection under 35 USC 103

Claims 5, 9, 13 and 17 stand rejected under 35 USC 103(a) as being unpatentable over Sicola in view of Choquier (USP no. 6,961,681).

Applicant respectfully disagrees with the reason for rejecting the claims.

Choquier teaches an architecture including a topology manger for managing application across a plurality of members for defining a plurality of resources comprising the applications. The architecture may also include a replication system for deploying the application to the members. (see Abstract).

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The Office Action refers to col. 8, lines 11-24, of the Choquier reference, for teaching a controller selecting from an ordered list of members (e.g., a controller failover hierarchy that specifies an order in which members become available as controllers.)

However as shown above, Sicola fails to provide any teaching or suggestion of establishing an order of selection of servers to take over for failed servers. Rather the teachings of Sicola, as represented by Fig. 6B, would motivate one to incorporate a system of either pinging between pairs of respective servers or pinging among the servers to determine which servers are failed and which are to take over.

Hence contrary to the statements made in the Office Action, no suggestion can be found in the Sicola reference that would motivate one skilled in the art to incorporate the teachings of Choquier into those of Sicola.

A claimed invention is *prima facie* obvious when three basic criteria are met. First, there must be some suggestion or motivation, either in the reference themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the teachings therein. Second, there must be a reasonable expectation of success. And, third, the prior art reference or combined references must teach or suggest all the claim limitations.

Applicant believes that in this case, the Office Action has impermissibly combined the teachings of Sicola and Choquier without any motivation or suggestion of such combination. For at least this reason applicant believes that a *prima facia* case of obviousness has not been made.

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Accordingly, the invention recited in the aforementioned claims, which depend from independent claims shown to include subject matter not disclosed by Sicola, are not rendered obvious by the teachings of the cited references.

In view of the foregoing, the applicant believes that the reason for the rejection has been overcome.

Applicant respectfully submits that the application is in condition for allowance and respectfully request favorable reconsideration.

In the event the Examiner deems personal contact desirable in the disposition of this case, the Examiner is invited to call the undersigned attorney at (914) 798 8505.

Please charge all fees occasioned by this submission to Deposit Account No. 05-0889.

Respectfully submitted,

Dated: 4/24/04



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